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Short Communication

The Resilient Resident: A Pilot Resiliency Curriculum on Physical Medicine and Rehabilitation Resident Burnout

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Abstract

Background: Physical Medicine and Rehabilitation (PM&R) physicians are among those most affected by burnout. Following the 2017 Revision of ACGME (Accreditation Council for Graduate Medical Education) Requirements, programs and institutions were encouraged to emphasize physician well-being and recognition and strategies to mitigate burnout. As an at-risk specialty, we desired to develop and implement a facilitated resilience curriculum for Resident Physicians (RPs). **Methods:** We performed a clinical audit to develop and implement a resilience curriculum (RC) during the 2018-2019 academic year at a tertiary accredited acute care rehabilitation facility. The leader of each workshop previously underwent formal resilience training in integrative health coaching and organizational leadership. In part with all RP's, a four-part workshop series was conducted using four guiding questions: (1) "Who am I and who are we?", (2) "What contributes to resilience?", (3) "What challenges our resilience?", and (4) "How can we combat challenges to resilience?". We report PM&R RP responses to an End of Curriculum Assessment (ECA). **Results:** Key ECA themes highlighted that RPs were highly engaged in the process, all reported the RC was helpful, and strategies learned in times of stress were firmly adopted. By the end of the academic year, 93.3% RPs reported that they used strategies learned from the curriculum in times of stress during the academic year. Of these, 85.7% RPs reported using these strategies multiple times a month), (4) endorsed increased comfort discussing personal struggles with peers and more control over work schedules. 100% of RPS were able to make and sustain new positive lifestyle changes throughout the academic year. **Conclusions:** Our pilot resilience curriculum provides preliminary data in support of a curriculum to address PM&R RPs burnout in the workplace and can be used to meet ACGME residency program requirements.

Introduction

Burnout has been defined as a syndrome of emotional exhaustion, depersonalization, and reduced sense of personal accomplishment.[1] Burnout rates vary by medical specialty among United States (U.S.) physicians. Physiatrists reported significant burnout,[2] as confirmed by subsequent physical medicine and rehabilitation (PM&R) studies.[3-6] Accreditation Council for Graduate Medical Education (ACGME) sought to address this issue for RPs, among whom burnout rates have been reported as high as 63%,[7] by instituting work hour limitations and ongoing revisions to the Common Program Requirements, including the addition of a well-being commitment.

A key challenge to addressing burnout among PM&R RPs is that examples in this population are sparse. Kao and colleagues found physiatry RPs and fellow burnout rates range from 22.2%-83.3%.8 Bean and colleagues report that the combination of lack of adequate time for personal life and greater than 50-hour work weeks correlated with RPs burnout.[9] Scholars suggest the following interventions for PM&R RPs burnout ought to include mental health services, mindfulness classes, planned social activities, and mentorship programs.[10] Aggarwal and colleagues administered a 12-week peer-led wellness curriculum to a mixed sample of five RP programs, including 21 physiatry RPs; however, results of the intervention on physiatry RPs were not discussed.[11] Due to the paucity of literature, we piloted a novel resilience curriculum (RC) and obtained preliminary usability data from PM&R RPs. We focused our pilot efforts on the depersonalizing effects of burnout and developed our RC to guide RPs on a path to self-discovery. The curriculum was designed to fulfill the ACGME's program requirement to prevent and minimize RP burnout. The coursework was also meant to be an independent curriculum that could be incorporated into an existing resilience series.

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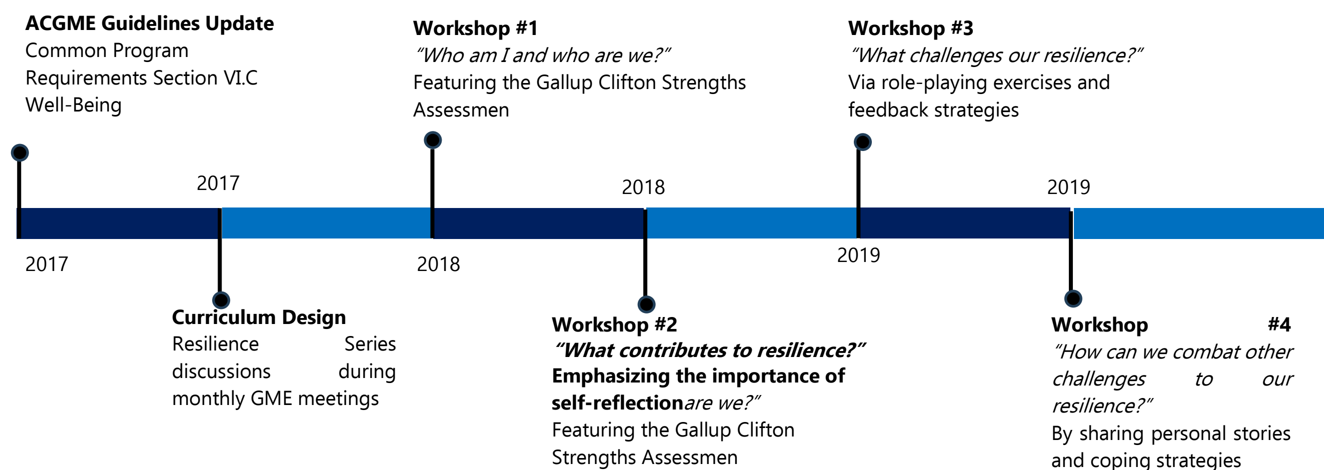
Table 1. Results of the End of Curriculum Assessment Administered to RPs.

Resident physicians who…	RP Respondents N	%
Felt the curriculum was helpful	15	100
Successfully made positive lifestyle changes**	15	100
At years' end, used strategies learned from the curriculum during stressful times	14	93
Felt loss of meaning and purpose during the previous academic year	12	80
Used strategies multiple times a month	12*	80
Experienced 1 or more major life stressors this academic year	11	73
Felt greater control over work schedules at the end of the curriculum	9	60
Felt more open to discussions regarding wellness at the end of the curriculum	6	40
Felt loss of meaning and purpose at the end of the curriculum	5	36
Felt more comfortable discussing personal struggles with peers at the end of the curriculum	5	33
Felt more connected to peers at the end of the curriculum	4	29
Used strategies once a month or less	2*	13

Legend: Table note: %: Percentage of positive respondents / total respondents. N: number of positive resident physician End of Curriculum Assessment respondents of 15 respondents. *: Of total 14 respondents. **: Including increasing physical activity, regular meditation, strengthening support systems, focusing on self-acceptance, and re-establishing priorities.

Figure 1. Timeline of Resiliency Curriculum Design and Implementation.



Methods

Design

Exempt status was obtained from the institutional review board. RP participation was voluntary. We performed a clinical audit of our existing curriculum which was found to lack resiliency training. Based on the 2017 ACGME burnout reduction standards, our department developed a set of competency-based educational objectives. "Resilience Series" was added to the recurring agenda of monthly Program Evaluation meetings to discuss and promote the RC with departmental leadership. The focus of the RC was on the depersonalizing effects burnout can have on individuals and how to guide RPs on a path to self-discovery.

Participants and procedures

Our pilot RC was initiated during the 2018-2019 academic year. RPs attended four 60-minute workshops July 2018 to March 2019, facilitated by our resident wellness advocate and lead faculty physician, with formal resilience training in integrative health coaching and organizational leadership. There were no prerequisites for learners to begin the curriculum and all 15 RPs were invited to each workshop. The variables we aimed to address are the described below for each workshop and the End of Curriculum Assessment (ECA) is how we measured those variables. Further details regarding characteristics of the workshop, see ***Supplemental material 1***.[12] For the complete timeline of events, see ***Figure 1.***

Workshop intervention

Workshop 1 "Who am I and who are we?" aimed to change the culture of self-doubt and criticism often found in medicine by identifying and fostering individual and group strengths. The theme was selected to create a unified residency vision and mission statement, as Silver and Bhatnagar proposed that physiatrists may be able to utilize mission statements for combating burnout.13 RPs suggestions and common recurring themes from the team building exercise were used to create unified vision and mission statements. The statements were displayed in the RPs workroom at the discretion of each RP throughout the academic year to serve as a source of inspiration during times of stress.

The Gallup Clifton Strengths Assessment was purchased by the residency program and completed by all RPs prior to the workshop start.14 Alternative assessments such as Myers-Briggs Type Indicator or the Kolbe Index were also available.15,16 For each RP, the assessment produced a list of top five strengths, which were further divided into four domains (executing, influencing, relationship building, strategic thinking). The results of this workshop were discussed with each RP during mid-year evaluations and were utilized by during the academic year to better understand and assist RPs in times of stress.

Workshop 2 "What contributes to resilience?" aimed to educate RPs on the modifiable dimensions of well-being, such as vitality, emotion, relationship, purpose, and growth, noting how each dimension could be modified to meet individuals' wants and needs. Differences in common terms used to describe one's health and how to assess personal health states through reflection and self-discovery were discussed.

Workshop 3 "What challenges our resilience?" aimed to address the most voiced RPs struggles at that time. Prior to the session, an email was sent to RPs asking for suggested topics for which "Giving and receiving constructive feedback" was selected from their responses. A presentation was given to discuss various feedback models and the importance of facilitating in-person bi-directional feedback. Attendees consisted of RPs and attendings, who were divided into groups of three, consisting of a feedback giver, receiver, and observer. Groups were given a fictional scenario and instructed to facilitate proper bi-directional feedback based on tools gained from a sample exercise, such as "feedback sandwich" (positive feedback given before and after negative verbal feedback). The workshop concluded with a debrief and strategizing discussion. To continue healthy feedback interactions between RPs and attending physicians, this workshop was also utilized to improve existing rotational RP observation assessments, competency assessments, and end-of-rotation evaluation forms.

Workshop 4 "How can we combat other challenges to resilience?" aimed to discuss current RPs struggles and revisit coping strategies in times of stress. All fifteen RPs, five from each post graduate year (PGY), were asked to contemplate how they manage burnout and stay resilient before the session. Current RPs struggles were discussed in small group settings. Next, the group suggested coping strategies that may be useful for each real-world situation. We revisited personal and group strengths, modifying dimensions of well-being, and connecting to sources of power such as peers, friends, and family.

Outcomes

We retrospectively monitored curriculum usability with a face-validated posttest designed ECA with multiple-choice and open-ended questions ***(Supplemental material 2).*** Each workshop had a 1-minute free-text evaluation to provide any feedback to help with future workshops and assessments. This anonymous data was collected and reviewed by the lead faculty advisor and the residency program director. Subjective analysis of the RC for the following academic year was performed to justify future expansion of more sessions. Of the 15 ECAs collected, the percentages of each chosen answer choice per question were calculated to subjectively review. To ensure accuracy of data collection, RPs were informed their responses were anonymous and would have no impact on ACGME evaluations.

Results

Results of the ECA are provided in ***Table 1.*** 73.3% of RPs reported experiencing one or more major life stressors during the academic year. 80% of RPs reported feeling loss of meaning/purpose at one or more points during the previous academic year, and 33.3% reported feeling this less frequently at the end of the year. 100% of RPs reported that the curriculum was helpful. By the end of the academic year, 93.3% RPs reported that they used strategies learned from the curriculum in times of stress. Of these, 85.7% RPs reported using these strategies multiple times a month and 14.3% RPs reported using the strategies once a month or less. 33.3% RPs reported feeling more comfortable discussing personal struggles with peers and 26.6% felt more connected to their peers in general. 60% of RPs felt a greater sense of control over their work schedules. 40% of RPs felt more open to discussions regarding wellness. 100% of RPs were able to make and sustain new positive lifestyle changes throughout the year. These included being more physically active, engaging in regular meditation, expanding and/or further strengthening their support systems, focusing less on obtaining perfection, getting out of their comfort zone more often, and re-establishing priorities. Additional subjective feedback received from RPs included "the desire for more frequent sessions", "unstructured discussion time", "a focus on systemic issues", and "more faculty involvement in these workshops". Regarding the ECA, all RPs reported the RC was helpful. RPs endorsed increased comfort discussing personal struggles with peers and more control over work schedules. We observed an increased ability to successfully make and sustain positive lifestyle changes and a decreased personal sense of loss of meaning

Discussion

We aimed to pilot a RC for PM&R RPs and obtain preliminary usability data. Results are in ***Table 1.*** All RPs reported the program was helpful and reported making positive changes to their lifestyle. The curriculum describes strategies that residency programs can immediately implement to address key organizational drivers of burnout; and RPs were highly engaged in the process as demonstrated by attendance at workshops. All sessions were attended by 12-15 RPs. Most RPs (80%) experienced loss of meaning/purpose during the previous year. At RC series completion, 29% of RPs expressed greater connection to their peers. Feeling isolated and loss contribute to stress and burnout; future programs need to consider ways of decreasing isolation, perhaps by increasing activities which promote a greater social connectedness among RPs. More

research is necessary before it can be concluded that the number of people attending workshops contributed to an effect.[17]

We observed an effect on department leadership. Leadership embraced the RC as a platform to promote connection and meaning in the workplace. Our department chairman shared RPs mission and vision statement with hospital administrators and system wide GME leadership. Attendings and RPs noted increased camaraderie, focus on self-care, and change in supportive dialogue since curriculum implementation.

It should be noted that our RC was designed to support all RPs beginning in 2018. Shortly before, there were revisions that were made to the Common Program Requirements (Section VI.C Well-Being)18 in 2017. A 2020 Cochrane Systematic Review suggests very-low certainty evidence supporting the effectiveness of resilience training on resilience, anxiety, and stress or stress perception in healthcare students.[19] A recent meta-analytic review found interventions to improve teamwork, communication, and stress management have small but positive effects on burnout;[20] however, no intervention studies on RC have included PM&R RPs, highlighting the need for more research. Our institution is committed to providing a community that promotes well-being.[21] For the 2025-2026 academic year, the Liaison Committee on Medical Education does not mandate resiliency or a well-being curriculum.[22]

Key limitations of this pilot are that well-being is dynamic and not every dimension can be addressed by our curriculum. We acknowledge that different curriculum interventions resonated at varying strengths with each RP. We chose RPs to administer the curriculum because they were highly motivated. We recognize the small sample size and, while not all invited residents attended all workshops, there were no dropouts. Future workshops ought to involve attending physicians and other disciplines. A clinical psychologist could also be involved in co-administering future workshop curricula. We surveyed RPs at one academic site, limiting generalizability to academic programs of different sizes, or to other specialties. There is possibility of selection bias. Additionally, the ECA was administered at the end of the year; including pre-assessment data would allow for more robust analysis. This clinical audit did not include hypothesis testing because the purpose was to generate preliminary data for a larger study. Descriptive statistics are provided in ***Table 1*** to gain insight into the RC to improve burnout in the PM&R context. We were not powered to conduct hypothesis testing. RPs responses may have been affected by social desirability bias as well as confounding factors including program, organization, institutional factors, or resident factors. Validated burnout scales should be employed during pre and post assessments. Multiple factors influence RPs burnout including time of year, rotation demand, work hours, control over schedule, transitional life changes, differences between PGY years, and specific stressors including increased leadership roles and navigating future career opportunities. It is plausible this curriculum could be beneficial for categorical PM&R programs as well; however, more research is warranted. A strength is that our curriculum is actively in use today.

Conclusions

Our findings support the notion that a PM&R RC to address to address burnout in the workplace is feasible with RPs. This pilot supports further development of the RC to decrease burnout in PM&R RPs. If effective, this curriculum could provide an option for RPs nationally.

Summary – Accelerating Translation

Title: The Resilient Resident: A Pilot Resiliency Curriculum on Physical Medicine and Rehabilitation Resident Burnout.

Main Problem

Burnout among resident physicians (RPs) is a significant issue, characterized by emotional exhaustion, depersonalization, and a diminished sense of personal accomplishment. In the U.S., burnout rates vary by specialty, and physiatry has shown notably high levels of burnout. The Accreditation Council for Graduate Medical Education (ACGME) has responded with regulations such as work hour limits and a focus on well-being.

Aim of Study

To address this, the Carolinas Department of Physical Medicine and Rehabilitation (PM&R) piloted a resilience curriculum aimed at reducing burnout among their residents. This curriculum was designed to meet ACGME requirements and was created based on literature and departmental needs, focusing on the negative impacts of burnout and guiding residents toward self-discovery.

Methodology

Four workshops were held throughout the 2018-2019 academic year at a tertiary accredited acute care rehabilitation facility in the Southeast U.S. These were hosted by the resident wellness advocate and lead faculty physician, who had completed formal resilience training and specialized training in leadership. Attendance was voluntary and all residents were encouraged to attend.

Details of the Curriculum:

1. Workshop 1: “Who am I and who are we?”
   - **Objective:** The workshop goal was to change the culture of self-doubt and criticism often found in medicine by identifying and fostering individual and group strengths. It helped residents identify their personal strengths and those of their peers.
   - **Activities:** Residents took the Gallup Clifton Strengths Assessment to discover their top strengths. They then used this information to create a unified vision and mission statement for their residency program. This statement was displayed in their work area to inspire and motivate them throughout the year.
2. Workshop 2: “What contributes to resilience?”
   - **Objective:** This workshop focused on educating RPs on the modifiable dimensions of well-being, such as vitality, emotion, relationship, meaning/purpose, and growth, noting how each dimension could be modified to meet individuals' wants and needs.
   - **Activities:** Residents learned how to reflect on their personal health and make changes to improve their overall well-being.
3. Workshop 3: “What challenges our resilience?”

- **Objective:** The goal was to address the most voiced RP struggle at that time, which was identified as how to give and receive constructive feedback effectively.
- **Activities:** Residents participated in role-playing exercises where they practiced giving and receiving feedback in a constructive way. They also discussed how to improve feedback processes between residents and attending physicians.

4. Workshop 4: "How can we combat other challenges to our resilience?"
   - **Objective:** This workshop aimed to discuss the current RP struggles and revisit coping strategies in times of stress.
   - **Activities:** Residents shared their personal struggles and brainstormed coping strategies in small groups. They revisited their strengths and discussed how to connect with supportive people like peers and family.

Results

Assessment: Preliminary data were collected using a face validated survey at the end of the program. The data from ECU indicates that the curriculum was well-received and effective in promoting positive changes and coping strategies, although there were varying degrees of impact on feelings of connection and openness.

Survey Results:

Below is a summary of the results of the End of Curriculum Assessment for the RPs:

- **Helpfulness of Curriculum:** All 15 RPs (100%) found the curriculum helpful.
- **Lifestyle Changes:** All 15 RPs (100%) successfully made positive lifestyle changes, such as increasing physical activity, meditating regularly, and strengthening support systems.
- **Use of Strategies in Stressful Times**: 14 RPs (93%) used the strategies learned from the curriculum during stressful periods.
- **Loss of Meaning and Purpose:** 12 RP (80%) felt a loss of meaning and purpose during the previous academic year.
- **Frequency of Using Strategies:** 12 RPs (80%) used the strategies multiple times a month.
- **Major Life Stressors:** 11 RPs (73%) experienced one or more major life stressors during the year.
- **Control Over Work Schedules**: 9 RPs (60%) felt they had greater control over their work schedules by the end of the curriculum.
- **Openness to Wellness Discussions:** 6 RPs (40%) felt more open to discussing wellness topics by the end of the curriculum.
- **Ongoing Loss of Meaning and Purpose:** 5 RPs (36%) still felt a loss of meaning and purpose at the end of the curriculum.
- **Comfort in Discussing Struggles:** 5 RPs (33%) felt more comfortable discussing personal struggles with peers by the end of the curriculum.
- **Connection with Peers:** 4 RPs (29%) felt more connected to their peers by the end of the curriculum.
- **Infrequent Use of Strategies:** 2 RPs (13%) used the strategies once a month or less.

These positive preliminary data support the notion that the RC was well-received and promoted positive changes and coping strategies, although there were varying degrees of impact on feelings of connection and openness.

Conclusion

The PM&R RC has shown promise in helping RPs deal with burnout and stress. This pilot could be a useful model to improve physician well-being for other residency programs. Future improvements could involve including more faculty, mental health professionals, and expanding research to see how well the program works in different settings..

References

1. Maslach C, Jackson SE, Leiter MP. Maslach Burnout Inventory. 3rd ed. Consulting Psychology Press; 1986.
2. Shanafelt TD, Boone S, Litjen T, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work–life balance among US physicians relative to the general US population. Arch. Intern. Med. 2012;172(18):1377–85.
3. Shanafelt TD, Hasan O, Dyrbye LN, Sinsky C, Satele D, Sloan J, et al. Changes in burnout and satisfaction with work–life balance in physicians and the general US working population between 2011 and 2014. Mayo Clin. Proc. 2015;90(12):1600–13.
4. Medscape. Medscape National Physician Burnout and Suicide Report 2020. Available from: https://www.medscape.com/slideshow/2020-lifestyle-burnout-6012460. Updated Jan 15, 2020; cited 2024 May 15.
5. Medscape. "Death by 1000 Cuts": Medscape National Physician Burnout and Suicide Report 2021. Available from: https://www.medscape.com/slideshow/2021-lifestyle-burnout-6013456. Updated Jan 22, 2021; cited 2024 May 15.
6. Shanafelt TD, West CP, Sinsky C, Trockel M, Tutty M, Satele DV, et al. Changes in burnout and satisfaction with work–life integration in physicians and the general US working population between 2011 and 2017. Mayo Clin. Proc. 2019;94(9):1681–94.
7. Dyrbye LN, Burke SE, Hardeman RR, Herrin J, Wittlin NM, Yeazel M, et al. Association of clinical specialty with symptoms of burnout and career choice regret among US resident physicians. JAMA. 2018;320(11):1114–30.
8. Kao DJ, Franzese K, Seo YI, Mandalaywala NV, Oak K, Moroz A, et al. Evaluating burnout in physical medicine and rehabilitation residents. PM&R. 2016;8(Suppl):S326.
9. Bean AC, Schroeder AN, McKernan GP, Mesoros M, Silver JK, Verduzco-Gutierrez M, et al. Factors associated with burnout in physical medicine and rehabilitation residents in the United States. Am. J. Phys. Med. Rehabil. 2022;101(7):674–84.
10. Francio V, Ha C, Barndt B, Schappell J, Smith S, Weider KI, et al. Wellness in physical medicine & rehabilitation (PM&R) residency programs. PM&R. 2018;10(Suppl):S50.
11. Aggarwal R, Deutsch JK, Medina J, Kothari N. Resident wellness: an intervention to decrease burnout and increase resiliency and happiness. MedEdPORTAL. 2017;13:10651.
12. Duke Health. Duke Health and Well-Being Coach Training. Available from: https://dhwprograms.dukehealth.org/health-wellbeing-coach-training/. Updated 2024; cited 2024 Jun 3.
13. Silver JK, Bhatnagar S. Physician burnout in physical medicine and rehabilitation (PM&R): should we focus more on physiatrists' mission? Am. J. Phys. Med. Rehabil. 2017;96(8):e159–61.
14. Rath T. Strengths Finder 2.0. New York, NY: Gallup Press; 2007.
15. Briggs KC. Myers-Briggs Type Indicator. Form G. Palo Alto, CA: Consulting Psychologists Press; 1987.
16. Kolbe Corp. Kolbe A™ Index. Available from: https://secure.kolbe.com/k2/show_takeIndex/indexType_A. Updated 2021; cited 2024 Jun 3.

17. LaFontaine TP, DiLorenzo TM, Frensch PA, Stucky-Ropp RC, Bargman EP, McDonald DG. Aerobic exercise and mood. Sports Med. 1992;13(3):160–70.
18. Accreditation Council for Graduate Medical Education. ACGME Common Program Requirements Section VI with Background and Intent. Updated Feb 2017; cited 2024 Jun 3.
19. Kunzler AM, Helmreich I, König J, Chmitorz A, Wessa M, Binder H, Lieb K. Psychological interventions to foster resilience in healthcare students. Cochrane Database Syst. Rev. 2020;7:CD013684.
20. Kiratipaisarl W, Surawattanasakul V, Sirikul W. Individual and organizational interventions to reduce burnout in resident physicians: a systematic review and meta-analysis. BMC Med. Educ. 2024;24(1):1234.
21. Atrium Health. Department of Physical Medicine and Rehabilitation. Well-Being Policy. Updated Jun 2024.
22. Liaison Committee on Medical Education. Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree. Mar 2024

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Author Contributions

Conceptualization: MH, JK, VN, JB, SD, AM. Data Curation: JK, SD, AM. Formal Analysis: MH, JK, VN, SD. Methodology: MH, JK, VN, SD. Project Administration: MH, VN. Supervision: SD. Visualization: JL, AM. Writing - Original Draft: EF, MH, JK, VN, JB, SD, AM, AM. Writing - Review Editing: MH, SD, JL, AM.

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Supplementary Material

Supplemental Content 1

Workshop General Characteristics

We obtained exempt status from the Institutional Review Board before the implementation of the wellness curriculum. Written informed consent was not required for the administration of our end-of-curriculum assessment to participants.

Workshops took place in a conference room with computer access, projection, and recording capabilities and were attended either in-person or remotely via video conference. The workshop series was comprised of four 60-minute small group sessions implemented over one academic year with the following characteristics:

1. 10-15 residents per workshop.
2. Each workshop took place during previously dedicated lecture times.
3. Each workshop was planned progressively to facilitate carryover.
4. Each workshop had a fundamental question that participants were to consider through

a) self-reflection and

b) small group discussion: "Who am I and who are we?", "what contributes to resilience?", "what challenges our resilience?", and "How can we combat challenges to resilience?".

Characteristics of the Lead Facilitator and Resident Wellness Advocate

The faculty advisor worked with an integrative health coach and studied physician well-being as part of the Duke Leadership Program in Health and Well-being over 1-2 years.9 The advisor also served as a peer-to-peer support specialist for residents and physicians and was trained to facilitate Serious Illness Conversations based on Ariadne Labs. An interested RP was appointed as Resident Wellness Advocate and received coaching in small group facilitation, role-playing, and utility of reflective listening. While these educational development programs are optional for curriculum leaders, we recommend the facilitator have some background knowledge in resilience training and facilitation for which some of our faculty are open to receiving more training and knowledge.

Supplemental Content 2

End of Curriculum Assessment

To maintain participant anonymity, the data collected from the following survey will only be reported in aggregate.

1. Your gender is:
   - Male
   - Female
2. Your age is:
   - <25
   - 26-30
   - 31-35
   - 36-40
3. Please circle the items below that correlate with your educational achievements.
   - Bachelor of Arts or Science
   - Master's degree
   - PhD
   - DO
   - MD
4. Have you experienced any major life stressors (i.e., death of a loved one, relationship struggles/separation, personal injury/significant illness, traumatic events such as a natural disaster/theft/violence against you or a loved one, marriage, pregnancy/birth of a child, financial strain, increase in work responsibilities, or move) during this academic year?
   - Yes
   - No
5. How open were you to discussions regarding mindfulness, wellness, and well-being in the previous academic year?
   - Not open at all
   - Somewhat open

- Open
- Very open

6. How open are you to discussions regarding mindfulness, wellness, and well-being now at the end of this academic year?
   - Not open at all
   - Somewhat open
   - Open
   - Very open
7. Have you tried to make major and positive lifestyle changes during this academic year?
   - Yes, I made a change(s)
   - What changes did you make?
   - Were you successful?
   - Yes, I was successful
   - No, I was not successful
   - If not, what was the biggest challenge?
   - No, I did not make a change
8. How much control did you feel you had over your work schedule in the previous academic year?
   - No control
   - Some control
   - A lot of control
9. How much control did you feel you had over your work schedule during this academic year?
   - No control
   - Some control
   - A lot of control
10. How open were you to discussions with your peers regarding personal struggles in the previous academic year?
    - Not open at all
    - Somewhat open
    - Open
    - Very open
11. How open are you now to discussions with your peers regarding personal struggles?
    - Not open at all
    - Somewhat open
    - Open
    - Very open
12. How often did you feel connected to your co-workers in the previous academic year?
    - Never
    - Sometimes
    - Very Often
    - Always
13. How often did you feel connected to your co-workers during this academic year?
    - Never
    - Sometimes
    - Very Often
    - Always
14. How often did you feel loss of meaning or purpose in the previous academic year?
    - Never
    - Once a month or less
    - A few times a month
    - A few times a week
    - Daily

15. How often did you feel loss of meaning or purpose during this academic year?
    - Never
    - Once a month or less
    - A few times a month
    - A few times a week
    - Daily
16. How often this academic year did you use strategies learned in the Resilience Series in times of stress?
    - Never
    - Once a month or less
    - A few times a month
    - A few times a week
    - Daily
17. Did you feel like the Resident Resilience Curriculum was helpful?
    - Yes
    - No
18. Please specify areas for curriculum improvement.